

**SUPPORT FOR THE AMENDMENTS**

Claim 3 has been amended to provide proper antecedent basis.

Certain claims have been cancelled without prejudice to the subject matter therein, in order to reduce the issues for Appeal.

It is believed there is no possibility of new matter or new issues.

Entry is respectfully requested.

### **REMARKS**

Claims 1, 3-5, 12-24, 26-28, 31-32, and 36-38, 40-42 are in the case.

The present invention is directed to a process for the oligomerization of a mixed feed comprising C<sub>4</sub> and C<sub>5</sub> olefins in the presence of a selectivated crystalline molecular sieve oligomerization catalyst whereby a product is obtained comprising a dimeric component of the product having an average degree of branching of at most 2.0 and a Type V double bond content of at most 10%.

Claims 1, 5, 6, 8-11, 16, 18-21, 36-38, and 43 are rejected under §102 as being anticipated by Blain et al. (U.S. '933). Note that because of the cancellation of certain claims, only Claims 1, 5, 16, 18-21, and 36-38 are under consideration.

In response to Applicant's previous arguments that the present claims, at a minimum, are not anticipated by Blain et al., the Examiner takes the position that "Blain is deemed to anticipate the claimed olefinic feed in view [of] the teaching [at col. 1, lines 61-64]".

We respectfully traverse this holding.

Blain et al. explicitly states that the invention described therein is directed to propylene or butene (col. 5, about line 25) and mixtures thereof (col. 5, about lines 58-60).

The teaching in Blain et al. at col. 1, lines 61-64, is directed to "typical" prior art feedstocks. If Blain et al. believed that such feedstocks would work in the invention of '933, is there any doubt that it would have been so stated in the reference? The fact that Blain et al. did not incorporate the entire spectrum of "typical reactive feedstocks" into the invention described in '933 is a **teaching away from** the present invention.

How, with any certainty and expectation of success, would one of skill in the art know from Blain et al., that a feedstock having C<sub>4</sub>s and C<sub>5</sub>s can be oligomerized over selectivated catalysts? Perhaps the pore size is too small to allow either C<sub>5</sub>s to enter or the products to exit. That would be the expectation based on the teachings of Blain et al.

Accordingly, we believe the rejection is improper and it should be withdrawn.

Claims 3, 4, 7, 12-15, 17, 22-35, 39-42 and 44-46 are rejected under 103 as being obvious over Blain et al., *supra*, in view of EP 0 402 051 A2 ("EP 051"). Again, because of cancellation of various claims by this amendment, only claims 3, 4, 12-15, 17, 22-24, 36-28, 31-32, -- are under consideration.

As argued previously by Applicants, EP '051 does not cure the deficiencies of Blain et al. This is still the case, notwithstanding that, as noted the Examiner, that EP '051 is cited for the claim limitations related to downstream processing. In other words, at a minimum, the combination fails to suggest that C4s and C5s may be used in a feedstock, together, to successfully yield oligomers over selectivated catalysts. In deed, the combination reinforces the idea that such a feedstock was considered by those of skill in the art to not be useable in such a manner.

Moreover, even if the reference were to be properly combinable, in addition to the failure of the combination to suggest the use of C4s and C5s with any expectation of success, the combination also fails to suggest recovery of an aldehyde product (Claim 22), oxidizing the aldehyde and recovering an acid product (Claim 26) and esterifying said acid product (Claim 27), and also the limitations of claims 40-42.

Accordingly, the references taken together cannot fairly suggest the present invention and it is respectfully requested that the rejection under 35 USC §103 be withdrawn.

Applicants believe the present application is in condition for allowance and early indication of such is earnestly solicited.

Respectfully submitted,

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